| | | (645 | G | (D) | 200 | (|)/ <i>R</i> |
|-------|---|---|---|--|--|-------------|-------------|
| Nat | CRF Errors Corrected Imber: 10/027,450 | i by th STI | C Syste | CRF Pro | cessing Dat: | 1/2 | 2/2 |
| | Changed a file from non-ASCII to ASCII | NTER | ED | Edited by Verified b | y: // | (S | ΓIC s |
| C | Changed the margins in cases where the sec | luence text wa | s 'wrappe | ed" down to | the next line |): / | |
| E | Edited a format error in the Current Application | on Data section | , specific | ally: | | É | 4 |
| | Edited the Current Application Data section was the prior application data; of | | current nu | mber. The | number inpu | ttediby | FFB 2 |
| Α | Added the mandatory heading and subheadin | ngs for "Curren | t Applicat | ion Data". | | 7 16C | 1 21 |
| E | Edited the "Number of Sequences" field. The | applicant spel | led out a | number ins | stead of using | a ny jete i | ger. |
| C | Changed the spelling of a mandatory field (the | e headings or | subheadir | ngs), specif | lically: | 8 | |
| С | Corrected the SEQ ID NO when obviously inc | correct. The se | quence n | umbers the | at were edited | d were: | |
| In | nserted or corrected a nucleic number at the | end of a nuclei | c line. S | EQ ID NO | 's edited: | | |
| | Corrected subheading placement. All respons pplicant placed a response below the subhea | | | | | ng. If the | |
| | | | | | | | |
| lr | nserted colons after headings/subheadings. | Headings edit | ed include | ed: | | | |
| _ | nserted colons after headings/subheadings. Deleted extra, invalid, headings used by an a | | | ed: , . | | | |
| | · | pplicant, specif | ically: | secretary in | | | |
| - C | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beg page numbers throughout text; othe | pplicant, specifinning/end of fi | les; | secretary in | | | |
| | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beginn page numbers throughout text; othe Inserted mandatory headings, specifically: | pplicant, specifinning/end of fir invalid text, se | les; | secretary in | | | |
| - C | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beg page numbers throughout text; othe | pplicant, specifinning/end of fir invalid text, so | ically: | secretary ii | | | |
| | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beging page numbers throughout text; othe Inserted mandatory headings, specifically: Corrected an obvious error in the response, second | pplicant, specification of firming/end of firming text, so specifically: | ically: les; uch as s required | secretary ii | | | |
| | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beging page numbers throughout text; othe Inserted mandatory headings, specifically: Corrected an obvious error in the response, second identifiers where upper case is used by an analysis of the page | pplicant, specificant, specifically: ut lower case in the specifically: | les; uch as s required | secretary in | ersa. | | |
| | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beginner page numbers throughout text; othe Inserted mandatory headings, specifically: Corrected an obvious error in the response, second identifiers where upper case is used be corrected an error in the Number of Sequence. | pplicant, specificant, specifically: ut lower case it is specifically: ut es field, specifically applicant. A uences and adults. | ically: les; uch as ically: ll occurre | secretary in d, or vice ve nces had to | ersa. o be deleted. h:" field acco | rdingly (| |
| Li Co | Deleted extra, invalid, headings used by an a Deleted: non-ASCII "garbage" at the beginner page numbers throughout text; other inserted mandatory headings, specifically: Corrected an obvious error in the response, seed its didentifiers where upper case is used be corrected an error in the Number of Sequence and Page Break" code was inserted by the eleted ending stop codon in amino acid sequences. | pplicant, specifically: ut lower case in the applicant. A uences and additional in the applicant and additional interest and | ically: les; uch as crequired ically: Il occurre | d, or vice vonces had to | ersa. o be deleted. h:" field acco | rdingly (e | error |

*Examiner: Th abov corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/027,450
DATE: 01/22/2002
TIME: 19:35:36

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

```
3 <110> APPLICANT: Falco, Saverio Carl
              Hitz, William D.
      5
              Kinney, Anthony J.
     6.
              Cahoon, Rebecca E.
              Rafalski, J. Antoni
      9 <120> TITLE OF INVENTION: PLANT BRANCHED CHAIN AMINO ACID BIOSYNTHETIC ENZYMES
     11 <130> FILE REFERENCE: BB-1126
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/027,450
C--> 14 <141> CURRENT FILING DATE: 2001-12-20
     16 <150> PRIOR APPLICATION NUMBER: 60/063,423
     17 <151> PRIOR FILING DATE: 1997-10-28
     19 <160> NUMBER OF SEQ ID NOS: 54
     21 <170> SOFTWARE: Microsoft Word Version 7.0A
     23 <210> SEQ ID NO: 1
     24 <211> LENGTH: 2135
     25 <212> TYPE: DNA
     26 <213> ORGANISM: Zea mays
     28 <400> SEQUENCE: 1
     29 cacageteca ettgteeetg tecatecatt cateatteee egteacteea ecaatteace
     30 acceaaaacc ctaaacccca tteegtacet caaegeegee geegeegeeg eegeegetge 120
     31 gatgcagtee atggegetea ecteceeete acteeeggag gteggeeeeg ttteeggeeg 180
     32 ccgtctccag cgcatccgtg ccaccgcggt atccgacgag ctcaagctga acaagtacag 240
     33 cgcgcgcatc acggagccca agtcgcaggg cgcctcgcag gccgtgctct atggggtcgg 300
     34 geteactgae getgaeetee geaageegea ggteggegte tegteggtgt ggtaegaggg 360
     35 gaacacetge aacatgeace tgeteegeet egeggaggee gteegtgaeg gegteegega
                                                                          420
     36 ggccggcatg gtcggcttcc ggtttaacac cgtcggtgtc agcgacgcca tttccatggg
                                                                          480
     37 caccegggge atgtgctaca geetecagte cegtgaeete ategeegaea geategagae
     38 cgtcatggga gcgcagcact acgacgccaa catttccata cctgggtgcg acaagaacat
                                                                          600
     39 gccaggtaca ataatggcaa tgggacggct taatcgacct agcataatga tatatggtgg
                                                                           660
                                                                           720
    40 aactattaag cetggteact tteagggeaa tteetatgat atagtatetg ettteeagtg
    41 ctatggagaa tatgttagtg gttcaatcac tgatgagcaa agaaagaacg tcctccgcaa
                                                                           780
    42 ttcatgtcca ggagcaggtg cctgtggtgg tatgtacaca gcaaacacta tggcatctgc
    43 tategaaact ttgggeatga gtetteeata eagttetteg acaeetgetg aggaceeact
    44 aaaactagaa gagtgccgtc ttgctgggaa gtatctttta gagttgctaa agatggattt
    45 gaageetaag gacattatea etgagaagte attgegaaat geaatggtta ttgttatgge 1020
    46 acttggtggt tegaetaatg etgttetgea tttgattgee attgeteggt eegttggttt 1080
    47 gcatttgact cttgatgatt tccagaaggt cagtgaccaa gttcctttcc ttgcagacct 1140
    48 caageccagt ggeaaatatg teatggagga tetacataag attggtggga eacetgeagt 1200
    49 cattcattac cttttggagc aaggtcttct tgatggtgat tgcatgactg ttactggtaa 1260
    50 aactctaget gagaatgeta aaatetteee teetetgtet gaggggeage aaataatteg 1320
    51 accacttgac aatcctatca aaccaactgg ccatattcaa atactttatg gaaatcttgc 1380
    52 accggaaggt tctgtcgcaa aaataactgg caaagaggga ctgttcttct caggtcccgc 1440
    53 attagttttt gagggtgaag aatccatgat cacagctatc tcagaaaacc cagcgaattt 1500
```

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

54 caagggaaag gtagtagtaa teegaggaga aggaecaaaa ggagggeeag ggatgeetga 1560 55 aatgttgact ccaacaagtg caataatggg tgctggtctc ggaaaggagt gcgccctgct 1620 56 gacagatggt agattttcag gaggetcaca tggatttgtt gtcggecaca tatgecetga 1680 57 agcacaggaa ggtggcccga ttggccttgt ccatagtggt gatgtaatca ccatcgatgt 1740 58 aagtaagagg gtaatcgacg ttgaccttac cgagcagcag ctcgaagaaa gacggaggaa 1800 59 atggacccca ccgccataca agtccacctg tggagctctt tggaagtaca tcaagcttgt 1860 60 ggctccagcg tctagaggat gcgtcactga tgagtaggat gtgttacatt ctgttaggtt 1920 61 gtgcacatga tgtgtttgtc aatcaaaagc tgttgccagg aacaatttcc ctgttagagt 1980 62 gattcattgt agttcggttt tgcatgtggc aggtatgaca ataaattgcc ggtttctaag 2040 63 agcttagcaa tgctgcagaa actgctgaat aatcgagtgt aatcggggtc cgtgagcaat 2100 64 cacatctttg tcagtcaaaa aaaaaaaaa aaaaa 66 <210> SEQ ID NO: 2 67 <211> LENGTH: 591 68 <212> TYPE: PRT 69 <213> ORGANISM: Zea mays 71 <400> SEQUENCE: 2 72 Met Gln Ser Met Ala Leu Thr Ser Pro Ser Leu Pro Glu Val Gly Pro 73 75 Val Ser Gly Arg Arg Leu Gln Arg Ile Arg Ala Thr Ala Val Ser Asp 76 20 25 78 Glu Leu Lys Leu Asn Lys Tyr Ser Ala Arg Ile Thr Glu Pro Lys Ser 81 Gln Gly Ala Ser Gln Ala Val Leu Tyr Gly Val Gly Leu Thr Asp Ala 55 84 Asp Leu Arg Lys Pro Gln Val Gly Val Ser Ser Val Trp Tyr Glu Gly 75 87 Asn Thr Cys Asn Met His Leu Leu Arg Leu Ala Glu Ala Val Arg Asp 85 90 90 Gly Val Arg Glu Ala Gly Met Val Gly Phe Arg Phe Asn Thr Val Gly 93 Val Ser Asp Ala Ile Ser Met Gly Thr Arg Gly Met Cys Tyr Ser Leu 115 120 125 96 Gln Ser Arg Asp Leu Ile Ala Asp Ser Ile Glu Thr Val Met Gly Ala 97 99 Gln His Tyr Asp Ala Asn Ile Ser Ile Pro Gly Cys Asp Lys Asn Met 100 145 150 155 102 Pro Gly Thr Ile Met Ala Met Gly Arg Leu Asn Arg Pro Ser Ile Met 170 105 Ile Tyr Gly Gly Thr Ile Lys Pro Gly His Phe Gln Gly Asn Ser Tyr 180 185 108 Asp Ile Val Ser Ala Phe Gln Cys Tyr Gly Glu Tyr Val Ser Gly Ser 109 195 111 Ile Thr Asp Glu Gln Arg Lys Asn Val Leu Arg Asn Ser Cys Pro Gly 215 220 114 Ala Gly Ala Cys Gly Gly Met Tyr Thr Ala Asn Thr Met Ala Ser Ala 115 225 230 235 117 Ile Glu Thr Leu Gly Met Ser Leu Pro Tyr Ser Ser Ser Thr Pro Ala 250 120 Glu Asp Pro Leu Lys Leu Glu Glu Cys Arg Leu Ala Gly Lys Tyr Leu

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

```
265
               260
123 Leu Glu Leu Leu Lys Met Asp Leu Lys Pro Lys Asp Ile Ile Thr Glu
                               280
    275
126 Lys Ser Leu Arg Asn Ala Met Val Ile Val Met Ala Leu Gly Gly Ser
                           295
                                               300
129 Thr Asn Ala Val Leu His Leu Ile Ala Ile Ala Arg Ser Val Gly Leu
                                           315
132 His Leu Thr Leu Asp Asp Phe Gln Lys Val Ser Asp Gln Val Pro Phe
                                       330
                   325
135 Leu Ala Asp Leu Lys Pro Ser Gly Lys Tyr Val Met Glu Asp Leu His
                                   345
138 Lys Ile Gly Gly Thr Pro Ala Val Ile His Tyr Leu Leu Glu Gln Gly
                                360
141 Leu Leu Asp Gly Asp Cys Met Thr Val Thr Gly Lys Thr Leu Ala Glu
                           375
                                               380
144 Asn Ala Lys Ile Phe Pro Pro Leu Ser Glu Gly Gln Ile Ile Arg
                                           395
                       ·390
147 Pro Leu Asp Asn Pro Ile Lys Pro Thr Gly His Ile Gln Ile Leu Tyr
                   405
                                       410
150 Gly Asn Leu Ala Pro Glu Gly Ser Val Ala Lys Ile Thr Gly Lys Glu
     420
                                   425
153 Gly Leu Phe Phe Ser Gly Pro Ala Leu Val Phe Glu Gly Glu Glu Ser
                               440
           435
156 Met Ile Thr Ala Ile Ser Glu Asn Pro Ala Asn Phe Lys Gly Lys Val
                                               460
                           455
159 Val Val Ile Arg Gly Glu Gly Pro Lys Gly Gly Pro Gly Met Pro Glu
                                           475
                       470
162 Met Leu Thr Pro Thr Ser Ala Ile Met Gly Ala Gly Leu Gly Lys Glu
                                       490
                   485
165 Cys Ala Leu Leu Thr Asp Gly Arg Phe Ser Gly Gly Ser His Gly Phe
                                   505
168 Val Val Gly His Ile Cys Pro Glu Ala Gln Glu Gly Gly Pro Ile Gly
                               520
           515
171 Leu Val His Ser Gly Asp Val Ile Thr Ile Asp Val Ser Lys Arg Val
                                               540
                           535
174 Ile Asp Val Asp Leu Thr Glu Gln Gln Leu Glu Glu Arg Arg Lys
                       550
                                           555
177 Trp Thr Pro Pro Pro Tyr Lys Ser Thr Cys Gly Ala Leu Trp Lys Tyr
                                       570
                  565
180 Ile Lys Leu Val Ala Pro Ala Ser Arg Gly Cys Val Thr Asp Glu
181
               580
                                   585
183 <210> SEQ ID NO: 3
184 <211> LENGTH: 2073
185 <212> TYPE: DNA
186 <213> ORGANISM: Glycine max
188 <400> SEQUENCE: 3
189 gtaaaccett tttccatcta gagttgttgc ggctctcttc tctgcacact cagaatgcag
190 tocacactot toaaccccac coattocott atocccactt caccacacto tatoagatoc 120
191 aattetggte atgettetet eteegttege geeteeateg eegtggaaae eeceaeggag 180
```

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

```
192 acggtgaage tgaacaagta cageteeege atcacegage ecaaategea gggegeetee
193 caggeogtge tetaeggegt eggtetetee gaggacgaea tggecaagee eeaggtegge
                                                                       300
194 gtctcctcgg tctggtacga gggcaacacc tgcaacatgc acctcctcca cctctccgag
                                                                       360
195 gccgtgcgtg acggcgttgc tgctgctggc atggttccct tccgcttcaa caccgttggc
                                                                       420
196 gtcagcgacg ccatctccat gggcacccgt ggcatgtgct acagcctcca gtccagggac
197 ctcattgccg acagcatcga gaccgtcatg gcagcgcagt ggtacgatgg caatatttcc
198 atccccggct gtgacaaaaa tatgccaggt actatcattg ccatggggag gctcaacaga
199 cctagcatta tggtttatgg cgggactata aaacctggtc attttgaggg taacacgttt 660
200 gacatagtgt ctgcctttca gtgctatgga gaatatgtga gtggatcaat taatgatgac 720
201 caaagacaaa atgttattcg caactcatgc cctggggctg gagcctgtgg tggaatgtat 780
202 acagccaata ccatggcttc tgcaatagaa gctatgggaa tgtctcttcc ctatagctca
203 totacacctg ctgaggatcc actaaagttg gatgagtgtc gtttagctgg gaaatatctt
204 cttgagttac tgaaaatgga cttgaagccc cgagatatca tcactcgtaa atcactacgt 960
205 aatgcaatgg ttatagttat ggcacttggt ggatctacta atgctgtgtt acatttaatt 1020
206 gctattgcca agtctgttgg cattgatttg actcttgatg attttcagaa ggttagcgat 1080
207 gaggttcctt ttattgcaga tcttaagcct agtgggaaat atgtcatgga agatgttcac 1140
208 aagattggag ggacteetge agttateege tacettettg ageaaggett tttagatggt 1200
209 gactgtatga ctgtcactgg aaaaacccta gctgaaaatg cagaacttgt ccctcctctg 1260
210 tocaacgggc aggaaataat aaggccagta gaaaatccca tcaagaagac ggctcacatt 1320
211 caaatattat atggaaacct tgcaccacag ggttccgttg ctaaaattac tggaaaagaa 1380
212 gggctgtact tctctggtcc tgcacttgtc tttgaaggag aggaggcaat gattgctgcc 1440
213 atttcaqaqq atccttcqaq ttttaagggg aaagtggttg taatcagggg agagggaccc 1500
214 aagggtggtc cgggaatgcc tgagatgtta acaccaacaa gtgcaataat gggtgcaggt 1560
215 cttggaaagg aagttgcatt attgactgat ggaagatttt caggaggttc acatggattt 1620
216 gtggttggcc atatatgtcc tgaagcacag gaaggtggtc caattggctt gattcaaaat 1680
217 qqaqacqtaa tcaatqttqa catcaagaat aggagaattg atgttttggt atcagatgag 1740
218 gagatggaag cacgcaggaa aaagtggact gctcctccat acaaagctaa ccgaggagct 1800
219 ctgtacaagt atattaaaaa tgtgacacct gcttctagtg gatgcgtaac agacgagtag 1860
220 aaaqacatac ctgcaqagca aaagctgata gtatgccttg gtgaaatttt gtcttgtgtt 1920
221 tocagaacaa gttggtaaaa attcaaaaac aaacctcatt toagagaatt taaaacaatg 1980
222 gaattgaatt gctactattg attagtgact atttaatatt tatgattttc tagagctaaa 2040
223 aaaaaaaaa aaaaaaaaaa aaaaaaaaa aaa
225 <210> SEQ ID NO: 4
226 <211> LENGTH: 601
227 <212> TYPE: PRT
228 <213> ORGANISM: Glycine max
230 <400> SEQUENCE: 4
231 Met Gln Ser Thr Leu Phe Asn Pro Thr His Ser Leu Ile Pro Thr Ser
232
                                         10
234 Pro His Ser Ile Arg Ser Asn Ser Gly His Ala Ser Leu Ser Val Arg
235
                                     25
237 Ala Ser Ile Ala Val Glu Thr Pro Thr Glu Thr Val Lys Leu Asn Lys
238
240 Tyr Ser Ser Arg Ile Thr Glu Pro Lys Ser Gln Gly Ala Ser Gln Ala
241
                             55
243 Val Leu Tyr Gly Val Gly Leu Ser Glu Asp Asp Met Ala Lys Pro Gln
                        70
                                             75
246 Val Gly Val Ser Ser Val Trp Tyr Glu Gly Asn Thr Cys Asn Met His
247
                    85
                                         90
```

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

| 249 | Leu | Leu | His | Leu | Ser | Glu | Ala | Val | | Asp | Gly | Val | Ala | Ala | Ala | Gly |
|-----|-----|-------|------|-----|----------------------|-----|-----|-------|-----|------|------|-------------|-----------------|-----|-----|-----|
| 250 | | | | 100 | | | | | 105 | | | | | 110 | | |
| 252 | Met | Val | Pro | Phe | Arg | Phe | Asn | Thr | Val | Gly | Val | Ser | Asp | Ala | Ile | Ser |
| 253 | | | 115 | | | | | 120 | | | | | 125 | | | |
| 255 | Met | Gly | Thr | Arg | Gly | Met | Cys | Tyr | Ser | Leu | Gln | Ser | Arg | Asp | Leu | Ile |
| 256 | | 130 | | | | | 135 | | | | | 140 | | | | |
| 258 | Ala | Asp | Ser | Ile | Glu | Thr | ٧al | Met | Ala | Ala | Gln | ${\tt Trp}$ | \mathtt{Tyr} | Asp | Gly | Asn |
| | 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| 261 | Ile | Ser | Ile | Pro | Gly | Cys | Asp | Lys | Asn | Met | Pro | Gly | Thr | Ile | Ile | Ala |
| 262 | | | | | 165 | | | | | 170 | | | | | 175 | |
| 264 | Met | Gly | Arg | Leu | Asn | Arg | Pro | Ser | Ile | Met | Val | Tyr | Gly | Gly | Thr | Ile |
| 265 | | _ | _ | 180 | | | | | 185 | | | | | 190 | | |
| 267 | Lys | Pro | Gly | His | Phe | Glu | Gly | Asn | Thr | Phe | Asp | Ile | Val | Ser | Ala | Phe |
| 268 | - | | 195 | | | | _ | 200 | | | | | 205 | | | |
| | Gln | Cvs | Tvr | Glv | Glu | Tyr | Val | Ser | Gly | Ser | Ile | Asn | Asp | Asp | Gln | Arg |
| 271 | | 210 | _ | - | | - | 215 | | | | | 220 | - | | | |
| | Gln | | Va1 | Ile | Arg | Asn | Ser | Cys | Pro | Gly | Ala | Gly | Ala | Cys | Gly | Gly |
| | 225 | | | | | 230 | | _ | | - | 235 | - | | - | _ | 240 |
| | | Tvr | Thr | Ala | Asn | | Met | Ala | Ser | Ala | Ile | Glu | Ala | Met | Gly | Met |
| 277 | | -1- | | | 245 | | | | | 250 | | | | | 255 | |
| | Ser | Leu | Pro | Tvr | | Ser | Ser | Thr | Pro | Ala | Glu | Asp | Pro | Leu | Lys | Leu |
| 280 | | | | 260 | | | - | | 265 | | | - | | 270 | - | |
| | Asp | Glu | Cvs | | Leu | Ala | Gly | Lvs | Tyr | Leu | Leu | Glu | Leu | Leu | Lys | Met |
| 283 | | 0.2.4 | 275 | 5 | | | 1 | 280 | - 1 | | | | 285 | | • | |
| | Asp | Leu | | Pro | Ara | Asp | Ile | | Thr | Arq | Lvs | Ser | Leu | Arg | Asn | Ala |
| 286 | | 290 | -1- | | 5 | | 295 | | | | - 4 | 300 | | | | |
| | Met | | Ile | Val | Met | Ala | Leu | Gly | Gly | Ser | Thr | Asn | Ala | Val | Leu | His |
| | 305 | , | | | | 310 | | | | | 315 | | | | | 320 |
| | | Ile | Ala | Ile | Ala | Lvs | Ser | Val | Gly | Ile | Asp | Leu | Thr | Leu | Asp | Asp |
| 292 | | | | | 325 | - 4 | | | • | 330 | • | | | | 335 | ~ |
| | Phe | Gln | Lvs | Va1 | | Asp | Glu | Val | Pro | Phe | Ile | Ala | Asp | Leu | Lys | Pro |
| 295 | | | -1- | 340 | | | | | 345 | | | | - | 350 | _ | |
| | Ser | Glv | Lvs | Tvr | Val | Met | Glu | Asp | Val | His | Lys | Ile | Gly | Gly | Thr | Pro |
| 298 | | 1 | 355 | - 4 | | | | 360 | | | - | | 36 ⁵ | - | | |
| | Ala | Val | | Arσ | Tvr | Leu | Leu | Glu | Gln | Gly | Phe | Leu | Asp | G1y | Asp | Cys |
| 301 | | 370 | | 5 | -1- | | 375 | - | | - | | 380 | - | - | - | - |
| | Met | | Val | Thr | Glv | Lvs | Thr | Leu | Ala | Glu | Asn | Ala | Glu | Leu | Val | Pro |
| | 385 | | | | 1 | 390 | | | | | 395 | | | | | 400 |
| | | Leu | Ser | Asn | Glv | | Glu | Ile | Ile | Arq | Pro | Val | Glu | Asn | Pro | Ile |
| 307 | | | | | 405 | | | | | 410 | | | | | 415 | |
| | Lvs | Lvs | Thr | Ala | | Ile | Gln | Ile | Leu | Tvr | Glv | Asn | Leu | Ala | Pro | Gln |
| 310 | -1- | -10 | | 420 | | | | | 425 | | - | | | 430 | | |
| | Glv | Ser | Va l | | Lvs | Tle | Thr | Glv | | Glu | G1v | Leu | Tyr | Phe | Ser | Gly |
| 313 | -1 | | 435 | | -1- | | | 440 | 1- | | -4 | * | 445 | | | • |
| | Pro | Ala | | Val | Phe | Glu | Glv | | Glu | Ala | Met | Ile | - | Ala | Ile | Ser |
| 316 | 110 | 450 | | | | 4 | 455 | | | | | 460 | | | | |
| | Glu | | Pro | Ser | Ser | Phe | | G) v | Lvs | Va1 | Val | | Ile | Arg | Glv | Glu |
| | 465 | nob | 110 | DCI | JC1 | 470 | טעה | O-1 | ~10 | | 475 | , | | 3 | 1 | 480 |
| | | Dro | T.vc | Glv | Glv | | Glv | Met | Pro | G111 | | Len | Thr | Pro | Thr | |
| JZI | GTÀ | FIO | пур | GTÄ | GTÅ | -10 | OTA | IIC C | | Jiu | 1100 | u | | 110 | | 201 |

Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.



VERIFICATION SUMMARYDATE: 01/22/2002PATENT APPLICATION: US/10/027,450TIME: 19:35:37

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01222002\J027450.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:362 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:5 L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 L:402 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:6 L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 L:694 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12 L:694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:695 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12 L:695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 $L:696\ M:258\ W:$ Mandatory Feature missing, <223> not found for SEQ ID#:12 L:696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:697 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12 L:697 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:731 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:13 L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 L:1844 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:37 L:1844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 L:1976 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:39 L:1976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 L:1977 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:39 L:1977 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 L:1978 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:39 L:1978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 L:1979 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:39 L:1979 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 L:2009 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:40 L:2009 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 L:2061 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:42 L:2061 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 L:2416 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:51 L:2416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51